

JVC

SERVICE MANUAL

MODEL
A-X2

STEREO INTEGRATED AMPLIFIER
Super-A



No. 257
MAR. 1980

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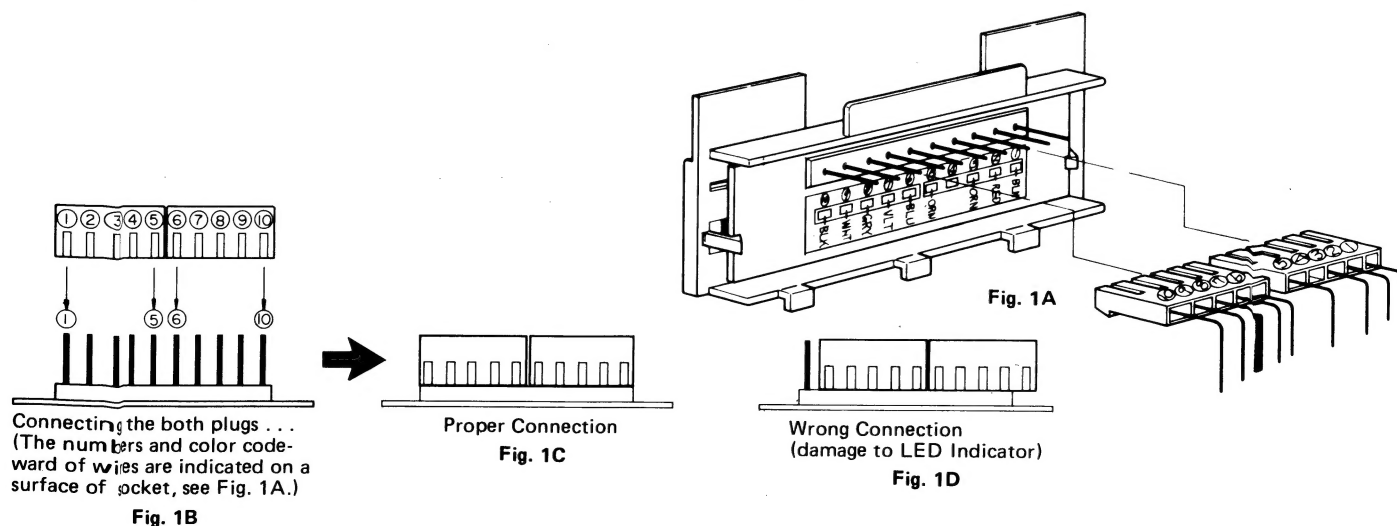
Warning:

When placing the parts marked with \triangle , be sure to use the designated parts to ensure safety.

1. Specifications

Output Power (Both Channels driven)	: 40 watts per channel, min. RMS into 8 Ω from 20 Hz to 20 kHz with no more than 0.007 % T.H.D. 42 watts per channel into 8 Ω at 1 kHz.	Center Frequency	: 40, 250, 1 k, 5 k, 15 kHz
Total Harmonic Distortion	: 0.007 % at Rated output, from 20 Hz to 20 kHz, 8 Ω 0.003 % at Rated output at 1 kHz, 8 Ω	Control Range	: ± 12 dB
Intermodulation Distortion	: 0.007 % at Rated output, 8 Ω	Input Sensitivity/Impedance	
Power Band Width	: 10 Hz — 30 kHz (IHF, both channels driven, 8 Ω , 0.02 % THD)	Phono	: 2.5 mV/47 k Ω
Frequency Response	: 10 Hz — 100 kHz $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ dB	TUNER, AUX, TAPE	: 150 mV/40 k Ω
Dumping Factor	: 50 (1 kHz, 8 Ω)	Rec. Output Level	: 150 mV
Tone Controls (S.E.A)		Phono Equalizer Deviation	: ± 0.5 dB (20 Hz — 15 kHz)
		Phono Overload	: 150 mV (1 kHz)
		Signal to Noise Ratio	
		Phono	: 73 dB (new IHF)
		TUNER, AUX, TAPE	: 77 dB (new IHF)
		Loudness Control (Volume Control at -30 dB position)	: +6 dB at 100 Hz +4 dB at 10 kHz
		Dimensions	: 4-11/16"(H) x 16-1/2"(W) x 12-5/16"(D) (12 cm x 42 cm x 32.9 cm)
		Weight (Net)	: 14.6 lbs (6.6 kg)
		Power Specifications	: See page 14

2. Proper Connections of Power LED Indicators



3. Main Parts Locations

3-(1) Top View

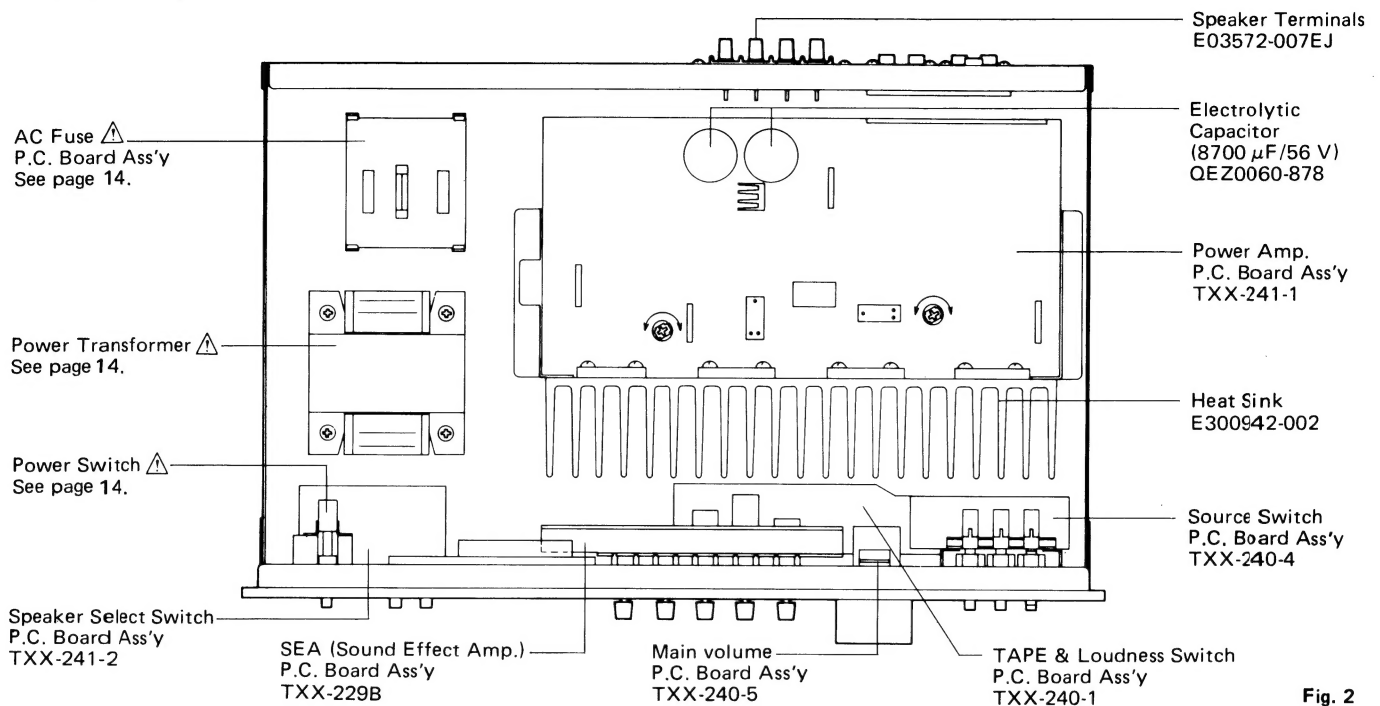


Fig. 2

3-(2) Front View

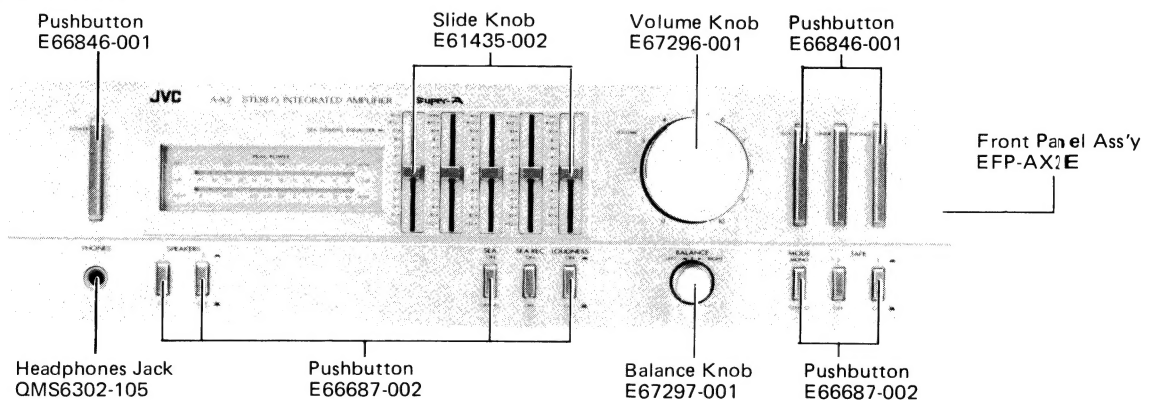


Fig. 3

3-(3) Rear View

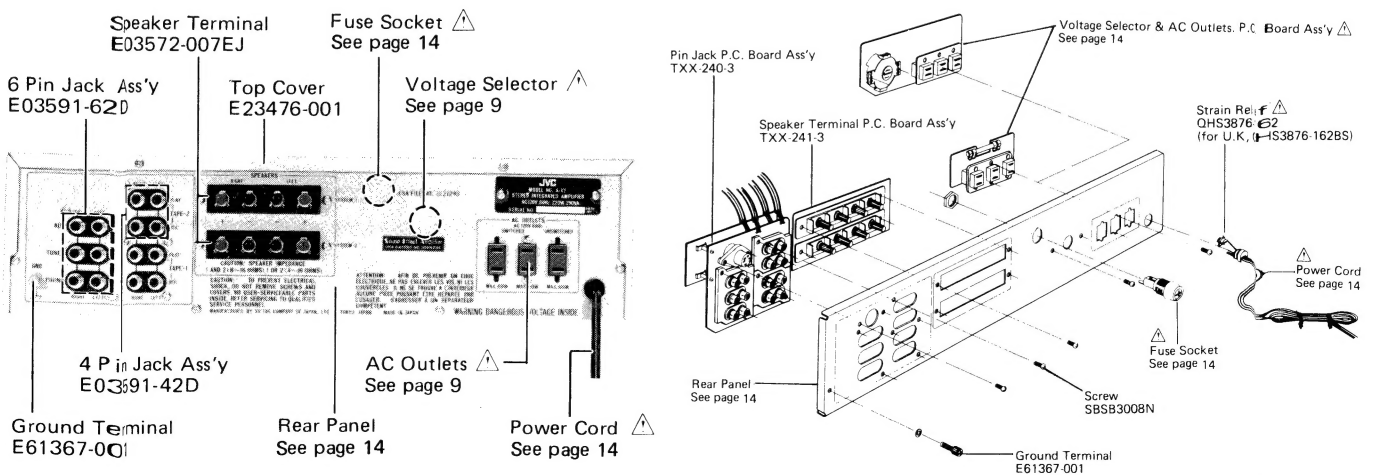


Fig. 4B

Δ : Safety Parts

Fig. 4A

4. Exploded View

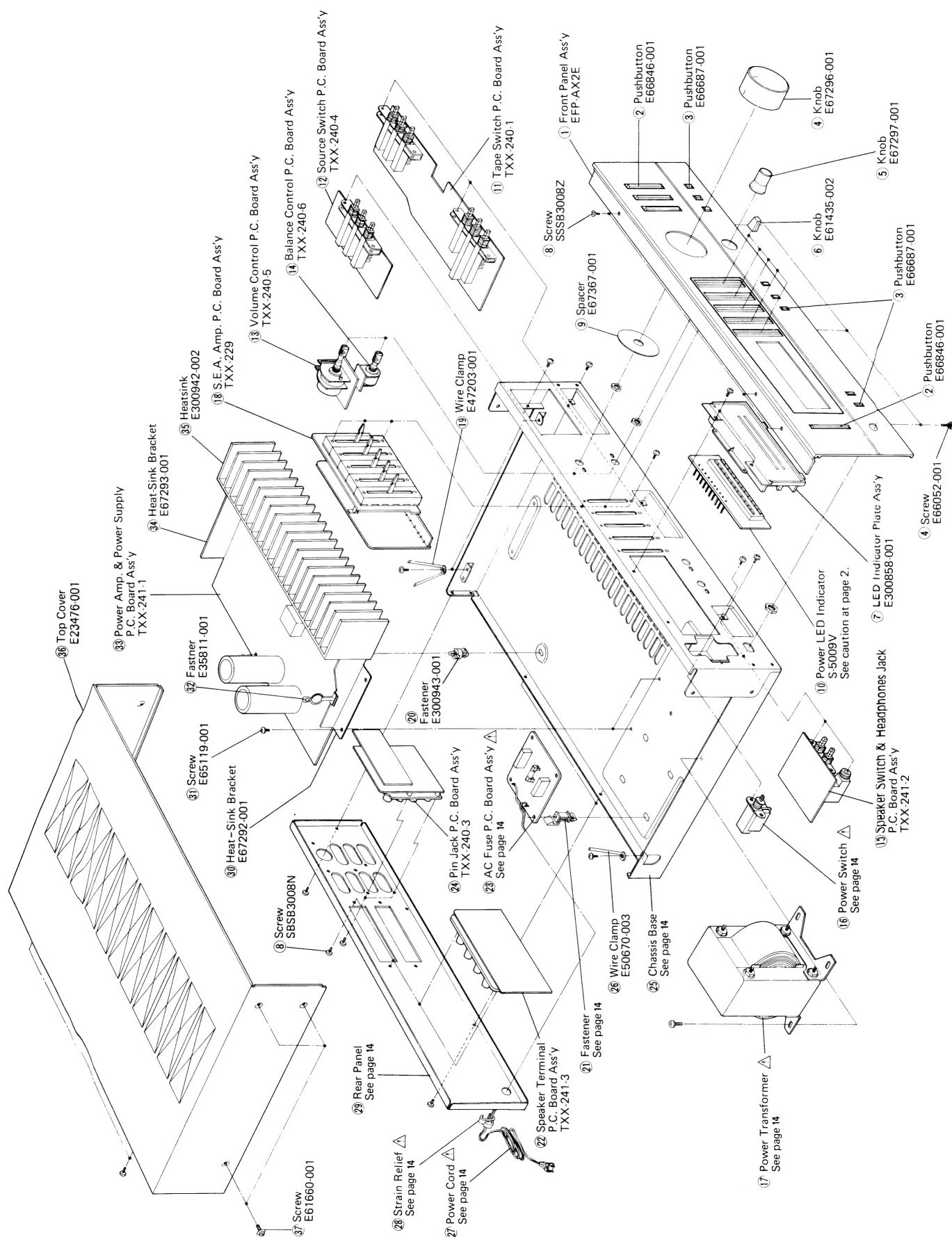
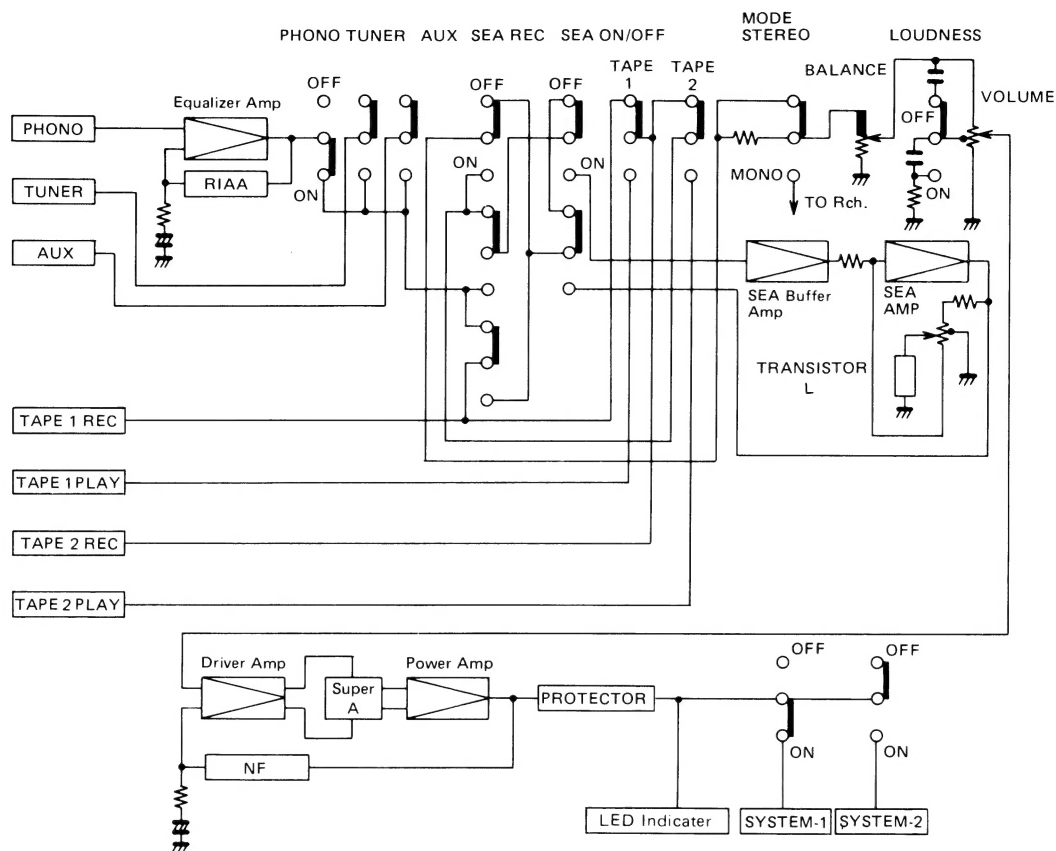


Fig. 5

5. Block Diagram



6. New Technology of IC in Super A Circuit

A newly developed IC has been employed in the heart of the super A bias circuit, thereby simplifying the circuit and improving its performance and reliability. Since the circuit

operation remains entirely the same as the conventional circuit, please refer to page 7 "Power Amplifying Section of Super A System" of the A-X5 service manual (No. 2479).

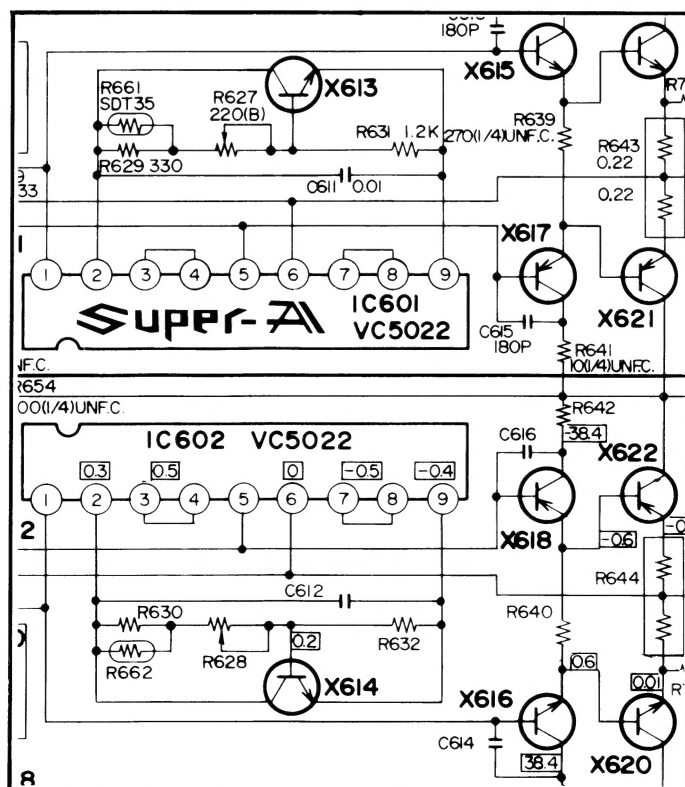


Fig. 7

7. Power Amplifier Idling Current Adjustment Procedure

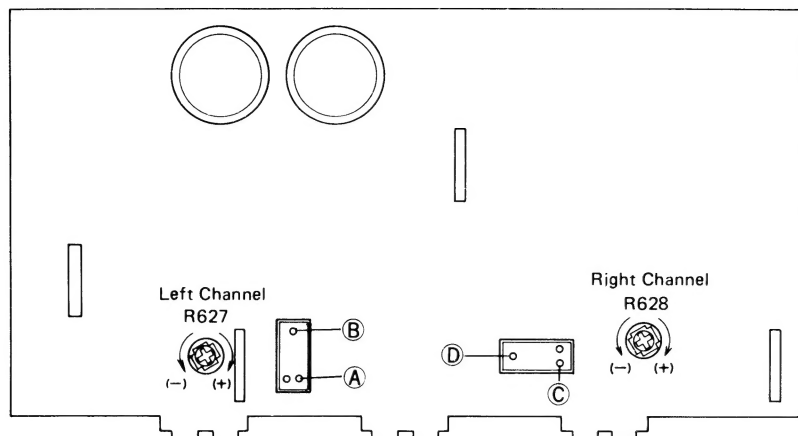


Fig. 8

1. Before turning on the power, turn the semi-fixed resistors <R627 for L channel and R628 for R channel> of the power amplifier circuit board fully counterclockwise.

2. Adjust the semi-fixed resistors (R627 and R628) so that the voltage at the following test points of the power amplifier circuit board is within a range of 10 mV – 14 mV after the power is turned on.

L channel: Measure the voltage between test point A (emitter of X619) and output at the test point B.

R channel: Measure the voltage between test point C (emitter of X620) and output at the test point D.

3. Readjust resistors R627 and R628 about 5 minutes after the power is turned on (the heat sink temperature must be sufficiently high) so that the voltage at the test points becomes 12 mV.

Confirm that the voltage does not vary when the heat sink temperature increases further.

Note: Be sure to perform the measurement with the probes and cabinet of the measuring equipment separated from the grounding terminals of A-X2 or of other measuring equipment.

8. Printed Circuit Board Ass'y and Parts List

8-(1) TXX-241A Power Amp., Volume Control & Other Functions Split P.C. Board Ass'y

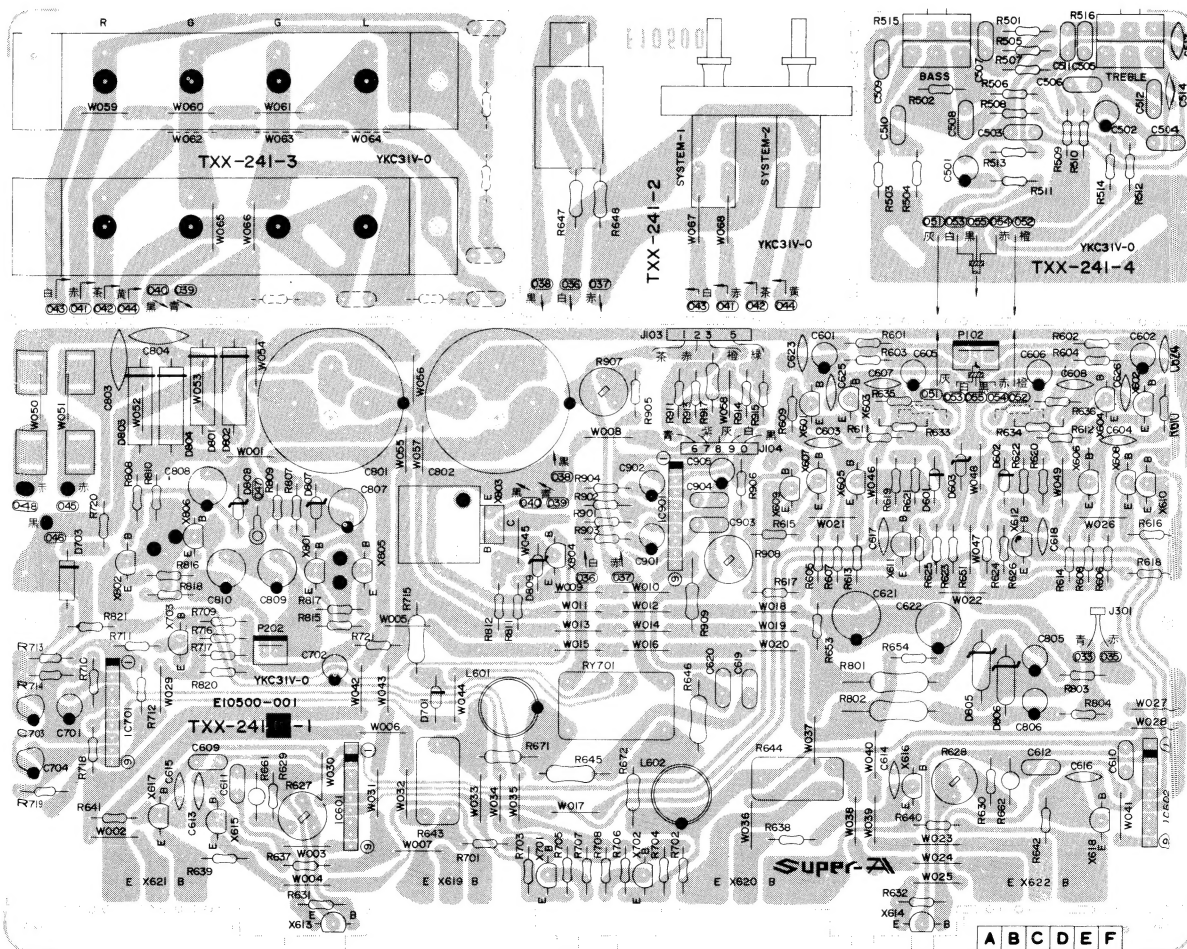
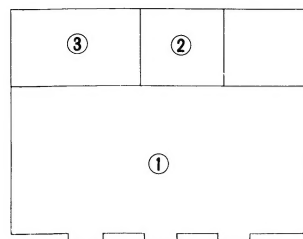


Fig. 9

Each Individual P.C. Board Location



- ① TXX-241A-1 : Power Amp. P.C. Board Ass'y
 ② TXX-241A-2 : Speaker Select Switch & Headphones P.C. Board Ass'y
 ③ TXX-241A-3 : Speaker Terminal P.C. Board Ass'y

Fig. 10

Note:

The Specific symbols (赤, 黒, 白, ... etc.) on a surface of above P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C. Board at the factory.

Transistors

Item No.	Part Number	Rating		Description	
		Pc	fT	Silicon	Maker
X601	2SC1775AV(F1)	0.2 W	200 MHz	Silicon	Hitachi
X602	2SC1775AV(F1)	"	"	"	"
X603	2SC1775AV(F1)	"	"	"	"
X604	2SC1775AV(F1)	"	"	"	"
X605	2SA1084(E)	0.4 W	120 MHz	"	"
X606	2SA1084(E)	"	"	"	"
X607	2SA1084(E)	"	"	"	"
X608	2SA1084(E)	"	"	"	"
X609	2SA1084(E)	"	"	"	"
X610	2SA1084(E)	"	"	"	"
X611	2SC2546(E,F)	"	90 MHz	"	"
X612	2SC2546(E,F)	"	"	"	"
X613	2SC2546(E,F)	"	"	"	"
X614	2SC2546(E,F)	"	"	"	"
X615	2SC2235(O,Y)	0.9 W	120 MHz	"	Toshiba
X616	2SC2235(O,Y)	"	"	"	"
X617	2SA965(O,Y)	"	"	"	"
X618	2SA965(O,Y)	"	"	"	"
X619	2SD845LB(R,O)	120 W	20 MHz	"	"
X620	2SD845LB(R,O)	"	"	"	"
X621	2SB755LB(R,O)	"	"	"	"
X622	2SB755LB(R,O)	"	"	"	"
X701	2SC1775AV(F)	0.2 W	200 MHz	"	Hitachi
X702	2SC1775AV(F)	"	"	"	"
X703	2SA872AV(E)	0.3 W	120 MHz	"	"
X801	2SC2235(O,Y)	0.9 W	"	"	Toshiba
X802	2SA965(O,Y)	"	"	"	"
X803	2SD313V(D,E)	30 W	8 MHz	"	Sanyo
X804	2SC458(C)	0.2 W	230 MHz	"	Hitachi
X805	2SC2235(O,Y)	0.9 W	120 MHz	"	Toshiba
X806	2SA965(O,Y)	"	"	"	"

Integrated Circuits

Item No.	Part Number	Rating		Description	
		Pc		I.C.	Maker
IC601	VC5022	0.5 W	0.7 W	"	Toyodengu
IC602	VC5022			"	"
IC701	TA7317P			"	Toshiba
IC901	TA7318P(2)			"	"

Diodes

Item No.	Part Number	Rating	Description	Maker
D601	1S2076-31		Silicon	Hitachi
D602	1S2076-31		"	"
D603	RD9.1EB3		Silicon (Zener)	NEC
D701	1S2076-31		Silicon	Hitachi
0703	ERB12-02RKL1		"	Fuji
D801	30D2FA-S		"	Nihon Inter.
D802	30D2FA-S		"	"
D803	30D2FA-S		"	"
D804	30D2FA-S		"	"
D805	EQB01-15Z		Silicon (Zener)	Fuji

Diodes

Item No.	Part Number	Rating	Description	Maker
D806	EQB01-15Z		Silicon	Fuji
D807	RD13EB3		Silicon (Zener)	NEC
D807	RD24EB3		"	"
D808	RD24EB3		"	"

Coils

Item No.	Part Number	Rating	Description
L601	E04059-1R2	1.2 μ H	Choke Coil
L602	E04059-1R2	"	"

Capacitors

Item No.	Part Number	Rating		Description
C601	QET51HR-225	2.2 μ F	50 V	Electrolytic
C602	QET51HR-225	"	"	"
C603	QCS21HJ-471	470 pF	"	Ceramic
C604	QCS21HJ-471	"	"	"
C605	QET51CR-476	47 μ F	16 V	Electrolytic
C606	QET51CR-476	"	"	"
C607	QCS21HJ-100	10 pF	50 V	Ceramic
C608	QCS21HJ-100	"	"	"
C609	QFM31HK-332	3300 pF	"	Mylar
C610	QFM31HK-332	"	"	"
C611	QFM31HK-103	0.01 μ F	"	"
C612	QFM31HK-103	"	"	"
C613	QCS21HJ-181	180 pF	"	Ceramic
C614	QCS21HJ-181	"	"	"
C615	QCS21HJ-181	"	"	"
C616	QCS21HJ-181	"	"	"
C617	QCS21HJ-151	150 pF	"	"
C618	QCS21HJ-151	"	"	"
C619	QFM31HK-473	0.047 μ F	"	Mylar
C620	QFM31HK-473	"	"	"
C621	QET51HR-107	100 μ F	"	Electrolytic
C622	QET51HR-107	"	"	"
C623	QCS21HJ-121	120 pF	"	Ceramic
C624	QCS21HJ-121	"	"	"
C701	QET51AR-107	100 μ F	10 V	Electrolytic
C702	QET51ER-226	22 μ F	25 V	"
C703	QET51HR-225	2.2 μ F	50 V	"
C704	QET51ER-226	22 μ F	25 V	"
C801	QE20057-878	8700 μ F	56 V	"
C802	QE20057-878	"	"	"
C803	QFM32AK-104	0.1 μ F	100 V	Mylar
C804	QCE22HP-103	0.01 μ F	500 V	Ceramic
C805	QET51CR-226	22 μ F	16 V	Electrolytic
C806	QET51CR-226	"	"	"
C807	QET51HR-107	100 μ F	50 V	"
C808	QET51HR-107	"	"	"
C901	QET51HR-105	1 μ F	"	"
C902	QET51HR-105	"	"	"
C903	QFM31HK-103	0.01 μ F	"	Mylar
C904	QFM31HK-103	"	"	"
C905	QET51HR-474	0.47 μ F	"	Electrolytic
C625	QCS21HJ-101	100 pF	50 V	Ceramic
C626	QCS21HJ-101	"	"	"

Resistors

Item No.	Part Number	Rating		Description
R601	QRD141J-222S	2.2 kΩ	1/4 W	Carbon
R602	QRD141J-222S	"	"	"
R603	QRD141J-104S	100 kΩ	"	"
R604	QRD141J-104S	"	"	"
R605	QRD141J-272S	2.7 kΩ	"	"
R606	QRD141J-272S	"	"	"
R607	QRD141J-272S	"	"	"
R608	QRD141J-272S	"	"	"
R609	QRD141J-331S	330 Ω	"	"
R610	QRD141J-331S	"	"	"
R611	QRD141J-472S	4.7 kΩ	"	"
R612	QRD141J-472S	"	"	"
R613	QRD149J-101S	100 Ω	"	"
R614	QRD149J-101S	"	"	"
R615	QRD141J-391S	390 Ω	"	"
R616	QRD141J-391S	"	"	"
R617	QRD141J-223S	22 kΩ	"	"
R618	QRD141J-223S	"	"	"
R619	QRD141J-242S	2.4 kΩ	"	"
R620	QRD141J-242S	"	"	"
R621	QRD141J-242S	"	"	"
R622	QRD141J-242S	"	"	"
R623	QRD149J-181S	180 Ω	"	"
R624	QRD149J-181S	"	"	"
R625	QRD149J-181S	"	"	"
R626	QRD149J-181S	"	"	"
R627	QVP4A0B-221	220 Ω	"	Variable
R628	QVP4A0B-221	"	"	"
R629	QRD141J-331S	330 Ω	1/4 W	Carbon
R630	QRD141J-331S	"	"	"
R631	QRD141J-122S	1.2 kΩ	"	"
R632	QRD141J-122S	"	"	"
R633	QRD141J-104S	100 kΩ	1/4 W	Carbon
R634	QRD141J-104S	"	"	"
R635	QRD141J-821S	820 Ω	"	"
R636	QRD141J-821S	"	"	"
R637	QRD149J-100S	10 Ω	"	"
R638	QRD149J-100S	"	"	"
R639	QRD149J-271S	270 Ω	"	"
R640	QRD149J-271S	"	"	"
R641	QRD149J-100S	10 Ω	"	"
R642	QRD149J-100S	"	"	"
R643	ERF032K-R22	0.22 Ω	3 W	Uninflamable
R644	ERF032K-R22	"	"	"
R645	QRX016J-100S	10 Ω	1 W	Oxide Metal Film
R646	QRX016J-100S	"	"	"
R647	QRG017J-221S	220 Ω	"	"
R648	QRG017J-221S	"	"	"
R651	QRD141J-562S	5.6 kΩ	1/4 W	Carbon
R653	QRD149J-101S	100 Ω	"	"
R654	QRD149J-101S	"	"	"
R661	SDT35	350 Ω	1 W	Varistor
R662	SDT35	"	"	"
R671	QRD129J-4R7	4.7 Ω	1/2 W	Carbon
R672	QRD129J-4R7	"	"	"
R701	QRD141J-152S	1.5 kΩ	1/4 W	"
R702	QRD141J-152S	"	"	"
R703	QRD141J-681S	680 Ω	"	"
R704	QRD141J-681S	"	"	"
R705	QRD141J-104S	100 kΩ	"	"
R706	QRD141J-104S	"	"	"
R707	QRD141J-123S	12 kΩ	"	"
R708	QRD141J-123S	"	"	"
R709	QRD141J-103S	10 kΩ	"	"
R710	QRD141J-104S	100 kΩ	"	"

Resistors

Item No.	Part Number	Rating		Description
R711	QRD141J-473S	47 kΩ	1/4 W	Carbon
R712	QRD141J-683S	68 kΩ	"	"
R713	QRD141J-334S	330 kΩ	"	"
R714	QRD141J-682S	6.8 kΩ	"	"
R715	QRG017J-821S	820 Ω	1 W	Oxide Metal Film
R716	QRD141J-332S	3.3 kΩ	1/4 W	Carbon
R717	QRD141J-223S	22 kΩ	"	"
R718	QRD141J-153S	15 kΩ	"	"
R719	QRD141J-224S	220 kΩ	"	"
R720	QRD149J-100S	10 Ω	"	"
R721	QRD149J-100S	"	"	"
R801	QRG017J-122S	1.2 kΩ	1 W	Oxide Metal Film
R802	QRG017J-122S	"	"	"
R803	QRD141J-820S	82 Ω	1/4 W	Carbon
R804	QRD141J-820S	"	"	"
R807	QRD141J-472S	4.7 kΩ	"	"
R808	QRD141J-472S	"	"	"
R809	QRD149J-5R6S	5.6 Ω	"	"
R810	QRD149J-5R6S	"	"	"
R811	QRD141J-682S	6.8 kΩ	"	"
R812	QRD149J-180S	18 Ω	"	"
R815	QRD149J-100S	10 Ω	"	"
R816	QRD149J-100S	"	"	"
R817	QRD149J-100S	"	"	"
R818	QRD149J-100S	"	"	"
R820	QRD141J-683S	68 kΩ	"	"
R821	QRD141J-334S	330 kΩ	"	"
R901	QRD141J-104S	100 kΩ	"	"
R902	QRD141J-104S	"	"	"
R903	QRD141J-623S	62 kΩ	"	"
R904	QRD141J-623S	"	"	"
R905	QRD141J-102S	1 kΩ	"	"
R906	QRD141J-102S	"	"	"
R907	QVP4A0B-102	"	"	Variable
R908	QVP4A0B-102	"	"	"
R909	QRG017J-182S	1.8 kΩ	1 W	Oxide Metal Film
R911	QRD141J-273S	27 kΩ	1/4 W	Carbon
R913	QRD141J-182S	1.8 kΩ	1/4 W	"
R914	QRD141J-203S	20 kΩ	"	"
R915	QRD141J-113S	11 kΩ	"	"
R917	QRD129J-471	470 Ω	1/2 W	"

Others

Item No.	Part Number	Rating	Description
S601	E65119-002		Screw
	QSP0023-008		Push Switch
	QMS6302-105		Headphone Jack
	QMV5005-003		3 Pin Plug Ass'y
RY701	ESK6D24-213		Relay Switch
	EWS012-039		2 Pin Socket Wire Ass'y
	EWS075-003		5 Pin Socket Wire Ass'y
	EWS075-004		"
	E66998-003		IC Cap
	E03572-007EJ		Speaker Terminal
	E300942-002		Heat Sink
	E43727-001		Tab
	E61537-001		Heat Sink
	E67292-001		Heat Sink Bracket (Left)
	E67293-001		" (Right)
	E67294-001		Clip (X513, 614)
	QMV5005-002		2 Pin Plug Ass'y
	E65654-001		Spacer

△ : Safety Parts

8-(2) TXX-240 Tone Controls & Other Select Switches Split P.C. Board Ass'y

The number of TXX-240 varies according to the areas employed. Refer to table below.

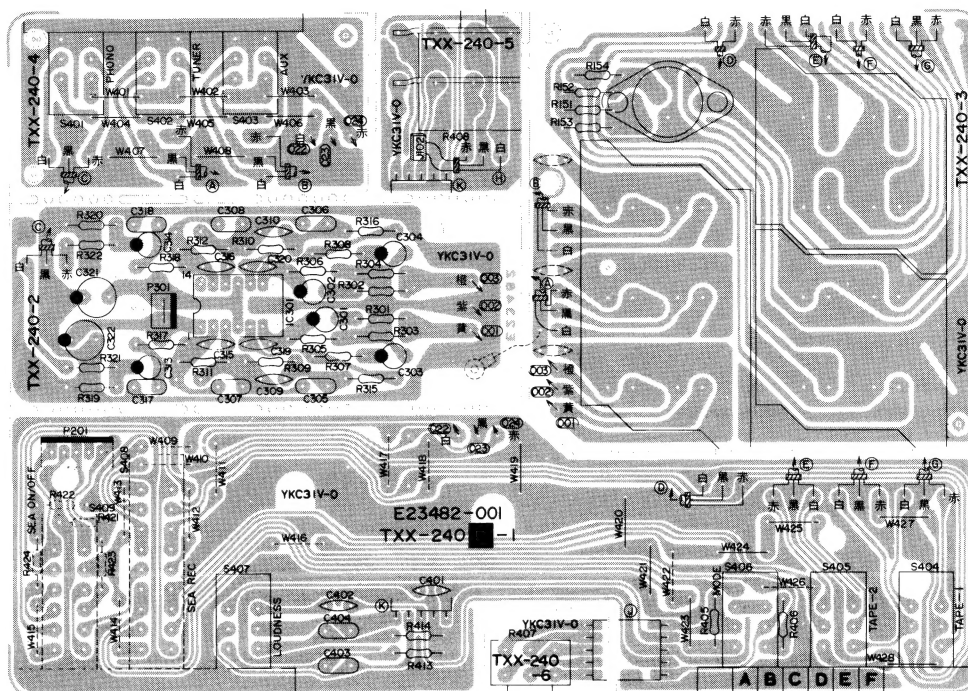


Fig. 11

Each individual P.C. Board Location

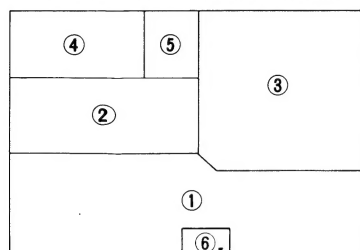


Fig. 12

Note:

The Specific symbols (赤, 黒, 白, ... etc.) on a surface of above P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C. Board at the factory.

Integrated Circuits

Item No.	Part Number	Rating	Description
		Pc	Maker
IC301	HA1452W	0.54W	I.C. Hitachi

Capacitors

Item No.	Part Number	Rating	Description
C301	QET51HR-475	4.7 μ F 50 V	Electrolytic
C302	QET51HR-475	"	"
C303	QET51AR-476	47 μ F 10 V	"
C304	QET51AR-476	"	"
C305	QFM31HJ-182	1800 pF 50 V	Mylar
C306	QFM31HJ-182	"	"
C307	QFM31HJ-332	3300 pF	"
C308	QFM31HJ-332	"	"
C309	QCS21HJ-121	120 pF 50 V	Ceramic
C310	QCS21HJ-121	"	"
C311	QFM31HJ-332	3300 pF	Mylar
C312	QFM31HJ-332	3300 pF	"
C313	QET51HR-475	4.7 μ F	Electrolytic
C314	QET51HR-475	"	"
C315	QCS21HJ-151	150 pF	Ceramic

- ① TXX-240-1 : Tape Select & Loudness Switch P.C. Board Ass'y
- ② TXX-240-2 : Equalizer Amp. P.C. Board Ass'y
- ③ TXX-240-3 : Pin Jack P.C. Board Ass'y
- ④ TXX-240-4 : Source Selector Switch P.C. Board Ass'y
- ⑤ TXX-240-5 : Main Volume P.C. Board Ass'y
- ⑥ TXX-240-6 : Balance Control P.C. Board Ass'y

Note:

In ☐ should be indicated an area code according to the table shown below when placing an order.

Designated Areas	P.C. Board Ass'y
U.S.A. & Canada	TXX-240 <input type="checkbox"/> -1, 3
All Other Areas	TXX-240 <input type="checkbox"/> -1, 3

Capacitors

Item No.	Part Number	Rating	Description
C316	QCS21HJ-151	150 pF 50 V	Ceramic
C317	QFM31HK-332	3300 pF	Mylar
C318	QFM31HK-332	"	"
C319	QCS21HJ-101	100 pF	Ceramic
C320	QCS21HJ-101	"	"
C321	QET51CR-107	100 μ F 16 V	Electrolytic
C322	QET51CR-107	"	"
C401	QCS21HJ-221	220 pF 50 V	Ceramic
C402	QCS21HJ-221	"	"
C403	QFM31HK-333	0.033 μ F	Mylar
C404	QFM31HK-333	"	"

Resistors

Item No.	Part Number	Rating	Description
R151	QRD141J-823S	82 k Ω 1/4 W	Carbon (Except U.S.A. & Canada)
R152	QRD141J-823S	"	"
R153	QRD141J-334S	330 k Ω	"
R154	QRD141J-334S	"	"
R301	QRD141J-222S	2.2 k Ω	Carbon
R302	QRD141J-222S	"	"
R303	QRD141J-104S	100 k Ω	"
R304	QRD141J-104S	"	"
R305	QRD141J-104S	100 k Ω 1/4 W	Carbon

Resistors

Item No.	Part Number	Rating		Description
R306	QRD141J-104S	"	"	"
R307	QRD141J-821S	820 Ω	"	"
R308	QRD141J-821S	"	"	"
R309	QRD141J-393S	39 k Ω	"	"
R310	QRD141J-393S	"	"	"
R311	QRD141J-474S	470 k Ω	"	"
R312	QRD141J-474S	"	"	"
R315	QRD141J-122	1.2 k Ω	"	"
R316	QRD141J-122	"	"	"
R317	QRD141J-470S	47 Ω	"	"
R318	QRD141J-470S	"	"	"
R319	QRD141J-104S	100 k Ω	"	"
R320	QRD141J-104S	"	"	"
R321	QRD141J-471S	470 Ω	"	"
R322	QRD141J-471S	"	"	"
R405	QRD141J-562S	5.6 k Ω	"	"
R406	QRD141J-562S	"	"	"
R407	QVD7A2M-1F5V	250 k Ω	"	Variable (Balance)
R408	QVC4A2B-AF5V	"	"	Variable (Master Volume)

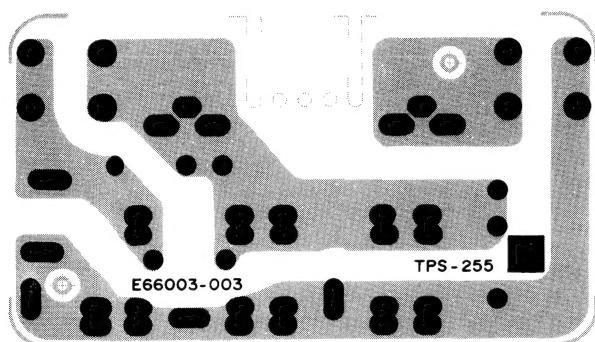
Resistors

Item No.	Part Number	Rating		Description
R413	QRD141J-223S	22 k Ω	1/4 W	Carbon
R414	QRD141J-223S	"	"	"
R421	QRD141J-104S	100 k Ω	"	"
R422	QRD141J-104S	"	"	"
R423	QRD141J-331S	330 Ω	"	"
R424	QRD141J-331S	"	"	"

Others

Item No.	Part Number	Rating	Description
S401	QSP0023-011		Push Switch (Source)
S404	QSP0023-010		" (Tape)
S407	QSP0023-009		" (SEA)
	QMV5005-002		2 Pin Plug Ass'y
	EWR35A-10NN		Flat Wire
	EWR35A-15NN		"
	EWS013-039		3 Pin Socket Wire Ass'y
	E03591-42D		4 Pin Pin Jack
	E03591-62D		6 Pin Pin Jack
	E03623-003		Din Socket (Except U.S.A. & Canada)

8-(3) TPS-255B AC Fuse P.C. Board Ass'y

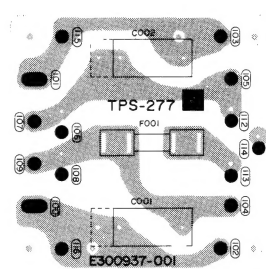


for U.S.A. & Canada

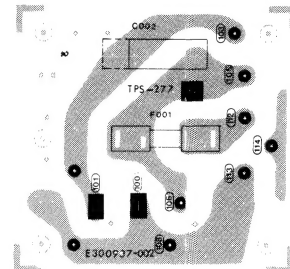
Fig. 13

Item No.	Part Number	Rating		Description
C001	QCZ9014-103A	0.01 μ F	125 V	Ceramic
	QMC0637-003			AC Outlet
	E03675-004			Fuse Clip
	E43727-001			Tab (\downarrow)
	E65508-001			Tab (\downarrow)

8-(4) TPS-277 AC Fuse P.C. Board Ass'y



TPS-277E: for Europe
TPS-277FBS: for U.K.



TPS-277I: for Australia & Europe
TPS-277JBS: for U.K.

Fig. 14A

Fig. 14B

Description	Part Number	
	TPS-277E, TPS-277I	TPS-277FBS, TPS-277JBS
Capacitor Δ	QFZ9010-103	QFZ9010-103BS
(C001/C002)	(0.01 μ F/250 V \sim)	(0.01 μ F/250 V \sim)
Tab (\downarrow)	E43727-002	E43727-002
Tab (\downarrow)	E65508-001	E65508-001
Fuse Clip Δ	E48965-002	E48965-002
Fuse LABEL Δ	E67132-T1R6	E67132-T1R6

8-(5) TPS-234A AC Voltage Selector P.C. Board Ass'y

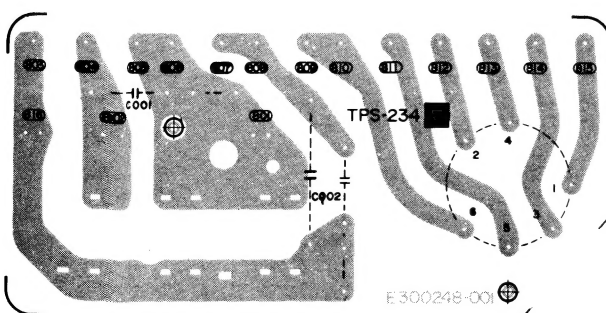


Fig. 15

for All Other Areas

Capacitor

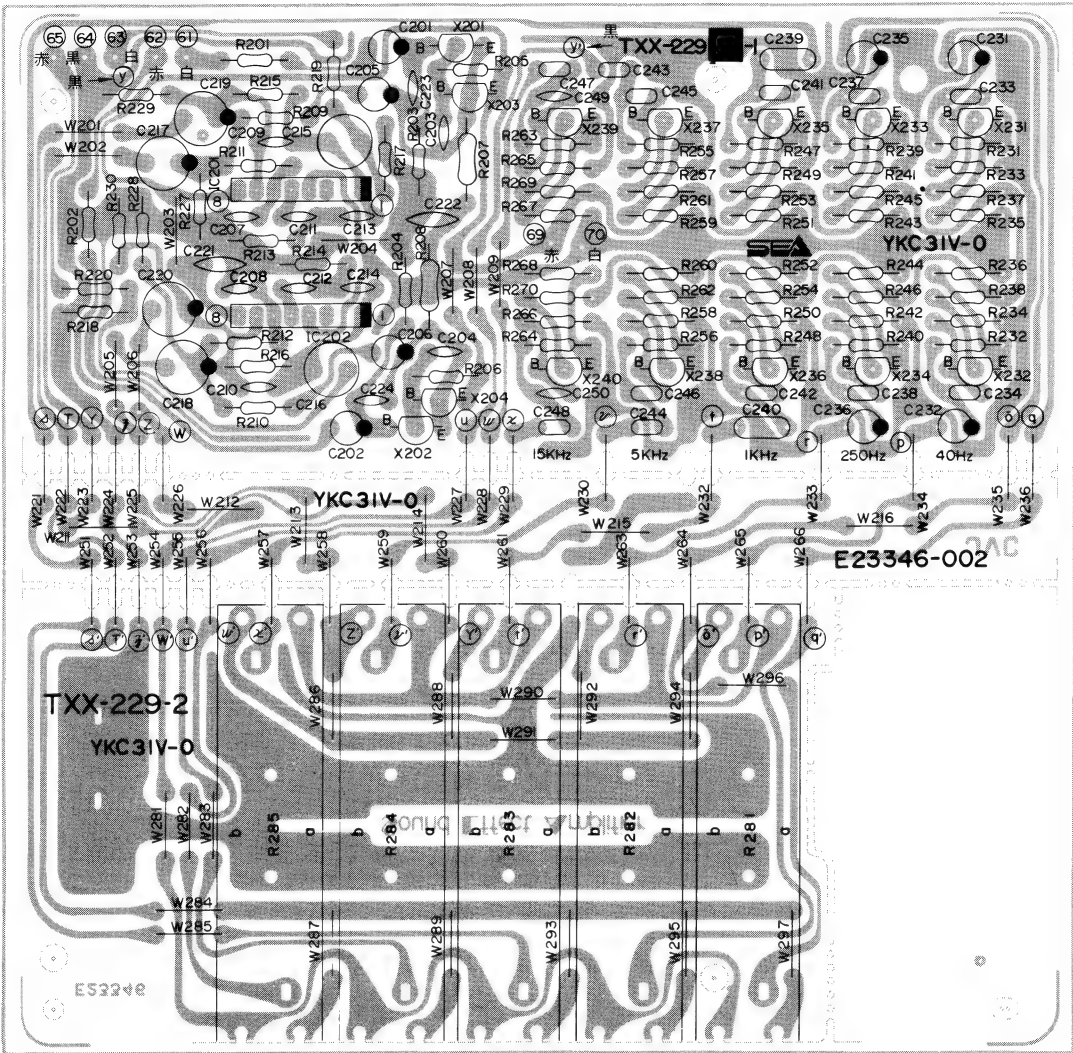
Item No.	Part Number	Rating	Description
C001/002	QFH53BM-103	0.01 μ F AC500 V	Film capacitor

Others

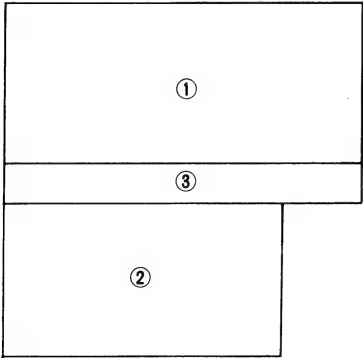
Item No.	Part Number	Rating	Description
	QMC0637-003		AC Outlet Δ
	E03675-004		Fuse Clip Δ
	E43727-001		Tab (\downarrow)
	E65508-001		Tab (\downarrow)
	QSR0085-001		Voltage Selector Δ

Δ : Safety parts

8-(6) TXX-229B SEA (Sound Effect Amplifier) P.C. Board Ass'y



Each Individual P.C. Board Location



- ① TXX-299-1 : SEA Amp. P.C. Board Ass'y
- ② TXX-299-2 : SEA Volume Control P.C. Board Ass'y
- ③ TXX-229 : Connector P.C. Board Ass'y

Note:
The Specific symbols (赤, 黒, 白, . . . etc.) on a surface of P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C. Board at the factory.

Transistors

Item No.	Part Number	Rating		Description	
		Pc	fT		Maker
X201	2SC1775AV(E,F)	0.2 W	200 MHz	Silicon	Hitiachi
X202	2SC1775AV(E,F)	"	"	"	"
X203	2SA1084(E)	0.4 W	120 MHz	"	"
X204	2SA1084(E)	"	"	"	"
X231	2SC1775AV(E,F)	0.2 W	200 MHz	"	"
X232	2SC1775AV(E,F)	"	"	"	"
X233	2SC1775AV(E,F)	"	"	"	"
X234	2SC1775AV(E,F)	"	"	"	"
X235	2SC1775AV(E,F)	"	"	"	"
X236	2SC1775AV(E,F)	"	"	"	"
X237	2SC1775AV(E,F)	"	"	"	"
X238	2SC1775AV(E,F)	"	"	"	"
X239	2SC1775AV(E,F)	"	"	"	"
X240	2SC1775AV(E,F)	"	"	"	"

Integrated Circuits

Item No.	Part Number	Rating	Description
		Pc	Maker
IC201	HA1457	0.5 W	IC
IC202	HA1457	"	"

Capacitors

Item No.	Part Number	Rating	Description
C201	QEB51EM-225	2.2 μ F 25 V	Low Leak Current Electrolytic
C202	QEB51EM-225	"	"
C203	QCS21HJ-120	12pF 50 V	Ceramic
C204	QCS21HJ-120	"	"
C205	QEB51EM-225	2.2 μ F 25 V	Low Leak Current Electrolytic
C206	QEB51EM-225	"	"
C207	QCS21HJ-151	150 pF 50 V	Ceramic
C208	QCS21HJ-151	"	"
C209	QCS21HJ-151	"	"
C210	QCS21HJ-151	"	"
C211	QCS21HJ-470	47 pF	"
C212	QCS21HJ-470	"	"
C213	QCS21HJ-271	270 pF	"
C214	QCS21HJ-271	"	"
C215	QE20046-475	4.7 μ F	Non Polar Electrolytic
C217	QET51ER-476	47 μ F 25 V	Electrolytic
C218	QET51ER-476	"	"
C219	QET51ER-476	"	"
C220	QET51ER-476	"	"
C221	QCF21HP-473	0.047 μ F 50 V	Ceramic
C222	QCF21HP-473	"	"
C223	QCS21HJ-101	100 pF	"
C224	QCS21HJ-101	"	"
C231	QET51HR-475	4.7 μ F	Electrolytic
C232	QET51HR-475	"	"
C233	QFM31HJ-223	0.022 μ F	Mylar
C234	QFM31HJ-223	"	"
C235	QET51HR-474	0.47 μ F	Electrolytic
C236	QET51HR-474	"	"
C237	QFM31HJ-822	8200 pF	Mylar
C238	QFM31HJ-822	"	"
C239	QFM31HJ-124	0.12 μ F	"
C240	QFM31HJ-124	"	"
C241	QFM31HJ-332	3300 pF	"
C242	QFM31HJ-332	"	"
C243	QFM31HJ-273	0.027 μ F	"
C244	QFM31HJ-273	"	"
C245	QFM31HJ-102	1000pF	"
C246	QFM31HJ-102	"	"
C247	QFM31HJ-562	5600 pF	"
C248	QFM31HJ-562	"	"
C249	QCS21HJ-681	680 pF	Ceramic
C250	QCS21HJ-681	"	"

Resistors

Item No.	Part Number	Rating	Description
R201	QRD141J-471SY	470 Ω 1/4 W	Carbon
R202	QRD141J-471SY	"	"
R203	QRD141J-104SY	100 k Ω	"
R204	QRD141J-104SY	"	"
R205	QRD141J-472SY	4.7 k Ω	"
R206	QRD141J-472SY	"	"
R207	QRD129J-332	3.3 k Ω 1/2 W	"
R208	QRD129J-332	"	"
R209	QRD141J-472SY	4.7 k Ω 1/4 W	"
R210	QRD141J-472SY	"	"

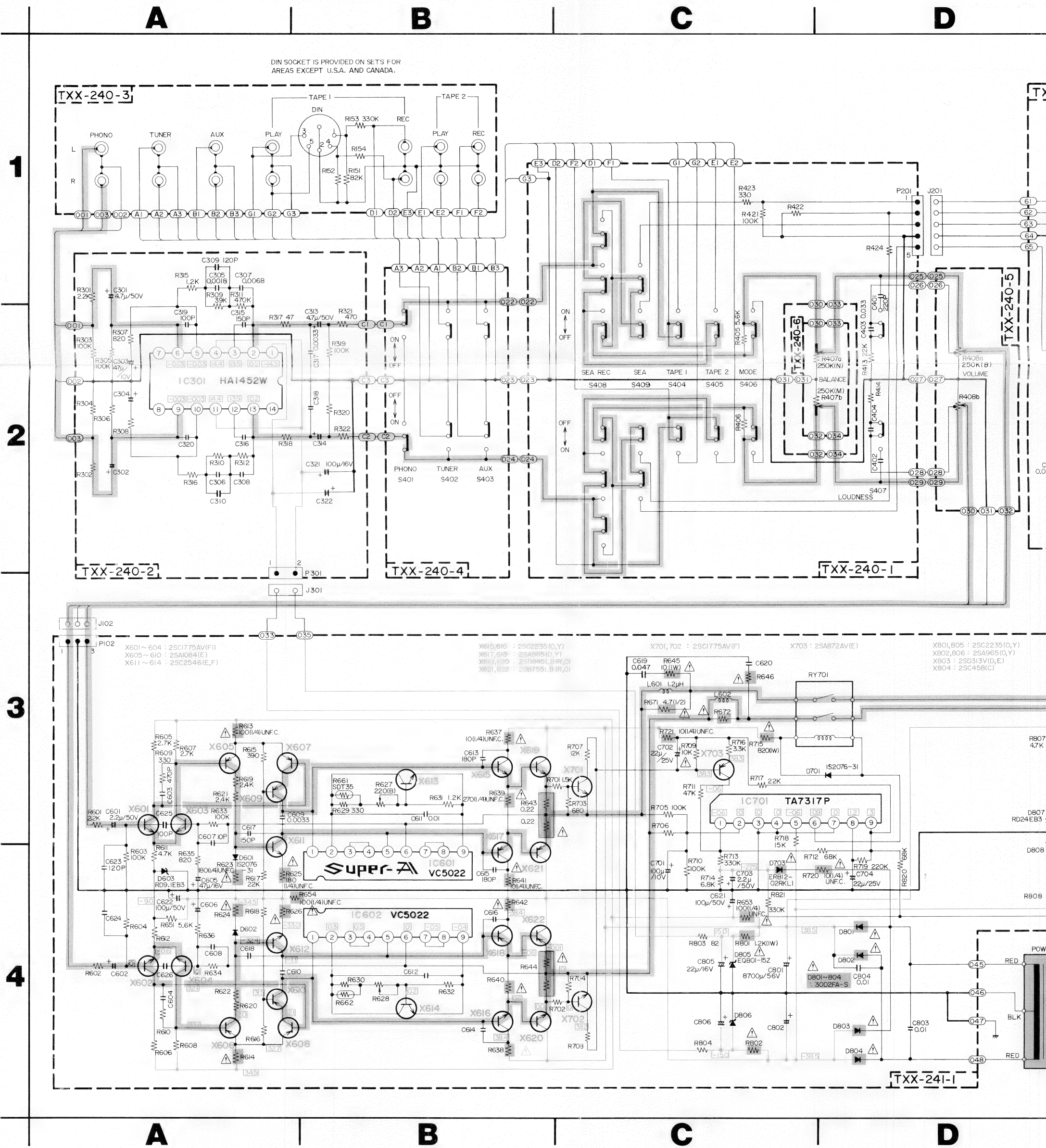
Resistors

Item No.	Part Number	Rating	Description
R211	QRD141J-100SY	10 Ω 1/4 W	Carbon
R212	QRD141J-100SY	"	"
R213	QRD141J-182SY	1.8 k Ω	"
R214	QRD141J-182SY	"	"
R215	QRD141J-472SY	4.7 k Ω	"
R216	QRD141J-472SY	"	"
R217	QRD141J-224SY	220 k Ω	"
R218	QRD141J-224SY	"	"
R219	QRD141J-331SY	330 Ω	"
R220	QRD141J-331SY	"	"
R227	QRD141J-224SY	220 k Ω	"
R228	QRD141J-224SY	"	"
R229	QRD141J-224SY	"	"
R230	QRD141J-224SY	"	"
R231	QRD141J-122SY	1.2 k Ω	"
R232	QRD141J-122SY	"	"
R233	QRD141J-134SY	130 k Ω	"
R234	QRD141J-134SY	"	"
R235	QRD141J-682SY	6.8 k Ω	"
R236	QRD141J-682SY	"	"
R237	QRD141J-391SY	390 Ω	"
R238	QRD141J-391SY	"	"
R239	QRD141J-122SY	1.2 k Ω	"
R240	QRD141J-122SY	"	"
R241	QRD141J-913SY	91 k Ω	"
R242	QRD141J-913SY	"	"
R243	QRD141J-682SY	6.8 k Ω	"
R244	QRD141J-682SY	"	"
R245	QRD141J-391SY	390 Ω	"
R246	QRD141J-391SY	"	"
R247	QRD141J-122SY	1.2 k Ω	"
R248	QRD141J-122SY	"	"
R249	QRD141J-513SY	51 k Ω	"
R250	QRD141J-513SY	"	"
R251	QRD141J-682SY	6.8 k Ω	"
R252	QRD141J-682SY	"	"
R253	QRD141J-391SY	390 Ω	"
R254	QRD141J-391SY	"	"
R255	QRD141J-122SY	1.2 k Ω	"
R256	QRD141J-122SY	"	"
R257	QRD141J-333SY	33 k Ω	"
R258	QRD141J-333SY	"	"
R259	QRD141J-682SY	6.8 k Ω	"
R260	QRD141J-682SY	"	"
R261	QRD141J-391SY	390 Ω	"
R262	QRD141J-391SY	"	"
R263	QRD141J-122SY	1.2 k Ω	"
R264	QRD141J-122SY	"	"
R265	QRD141J-243SY	24 k Ω	"
R266	QRD141J-243SY	"	"
R267	QRD141J-682SY	6.8 k Ω	"
R268	QRD141J-682SY	"	"
R269	QRD141J-391SY	390 Ω	"
R270	QRD141J-391SY	"	"
R281	QVZ5010-002	250 k Ω 1/8 W	Variable (40 Hz)
R282	QVZ5010-002	"	" (250 Hz)
R283	QVZ5010-002	"	" (1 kHz)
R284	QVZ5010-002	"	" (5 kHz)
R285	QVZ5010-002	"	" (15 kHz)

Others

Item No.	Part Number	Rating	Description
J201	EWS015-028		5 Pin Socket Wire Ass'y
J202	EWS012-038		2 Pin Socket Wire Ass'y

9. A-X2 Schematic Diagram

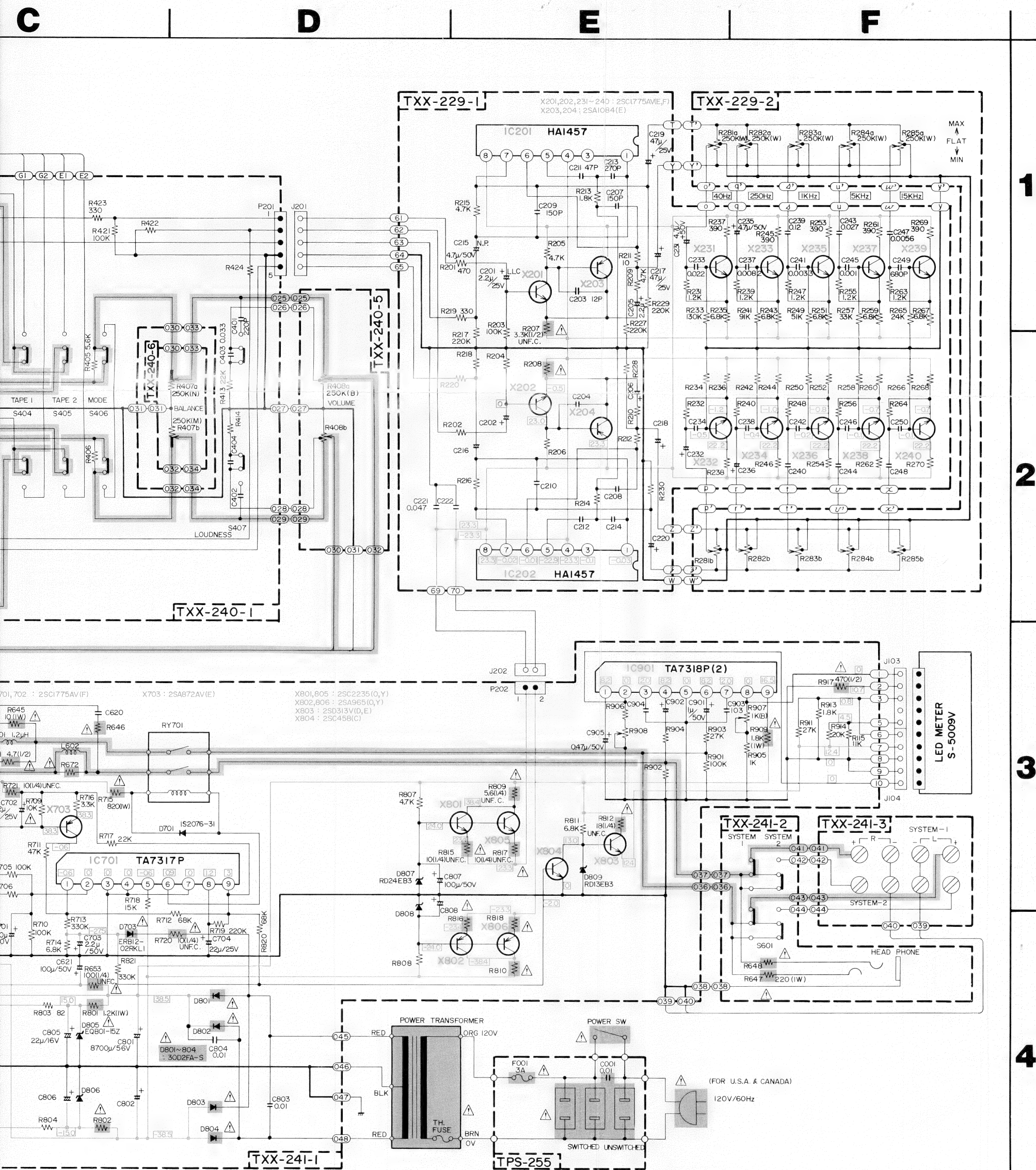


Printed Circuit Board Ass'y Locations

P.C. Board Ass'y	Description	Page
TXX-241A	Power Amp., Volume Control & Other Function Split P.C. Board Ass'y	5
TXX-240	Tone Controls & Other Select Switches Split P.C. Board Ass'y	8
TPS-255B	AC Fuse P.C. Board Ass'y	9
TPS-277	AC Fuse P.C. Board Ass'y	9
TPS-234A	AC Voltage Selector P.C. Board Ass'y	9
TXX-229B	SEA (Sound Effect Amplifier) P.C. Board Ass'y	10

- Notes:
1. Voltage values in are positive.
 2. Voltage values in are negative.
 3. indicates positive B power supply.
 4. indicates negative B power supply.
 5. indicates signal path.
 6. When replacing the parts in the darkened are () and those marked with △, be sure to use the designated parts to ensure safety.

7. Parts in red in this diagram are for reference only.
8. This is the standard design. The design is subject to change without notice.



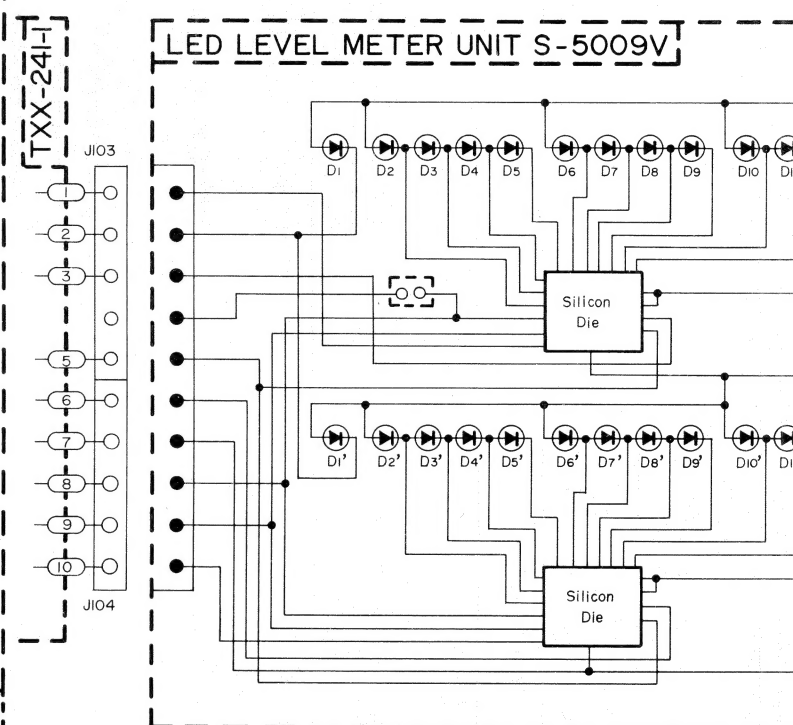
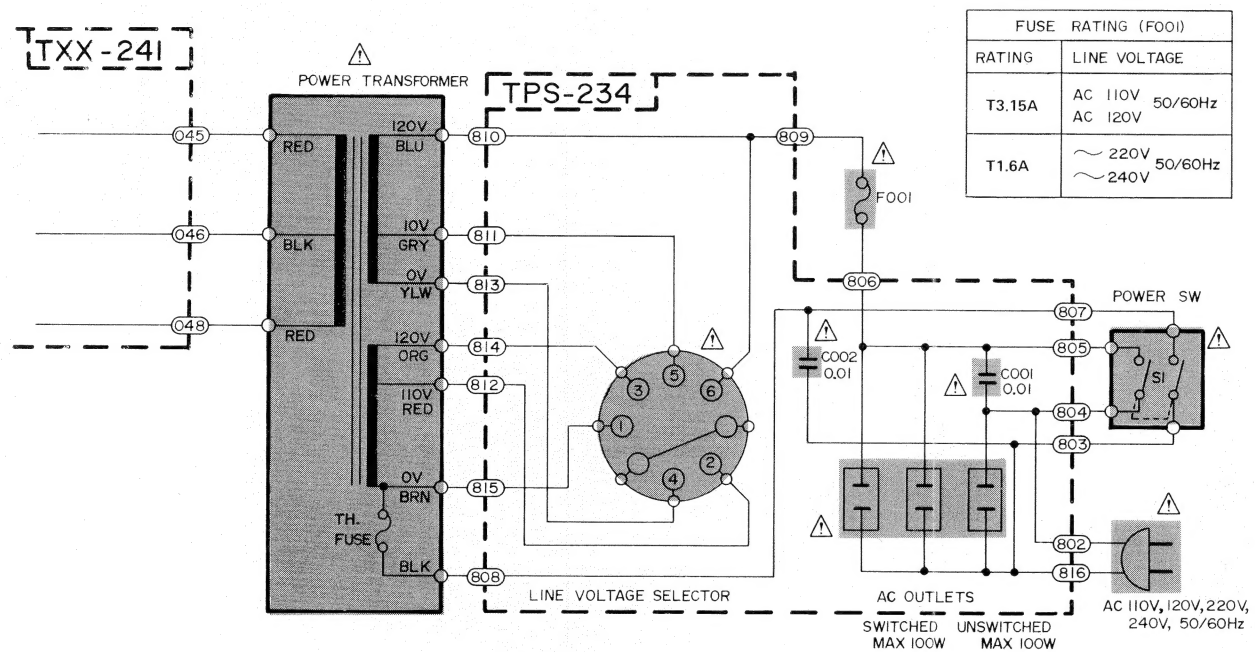
e values in are positive.
 e values in are negative.
 indicates positive B power supply.
 indicates negative B power supply.
 indicates signal path.
 replacing the parts in the darkened are () and
 marked with , be sure to use the designated parts
 are safety.

7. Parts in red indicate transistors or ICs.
 8. This is the standard circuit diagram.
- The design and contents are subject to change without notice.

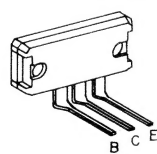
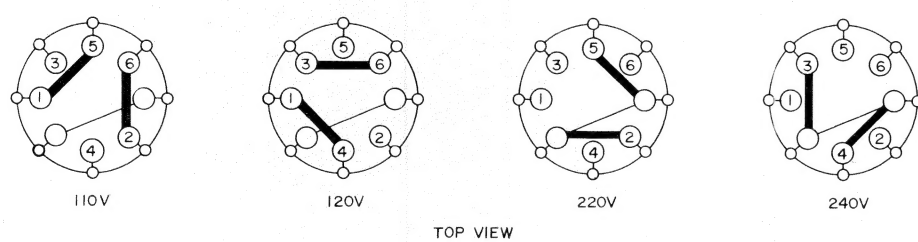
SEE BACK PAGE

SEE BACK PAGE

FOR OTHER COUNTRIES

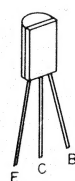


VOLTAGE SELECTOR CONNECTION



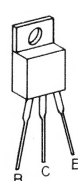
2SD845LB(R,O)
2SB755LB(R,O)

X619, 620
X621, 622

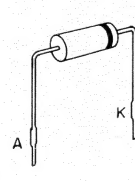


2SC1775AV(E,F)
2SA1084(E)
2SC1775AV(FI)
2SA1084(E)
2SC2546(E,F)
2SC2235(O,Y)
2SA965(O,Y)
2SC1775AV(F)
2SA872AV(E)
2SC458(C)

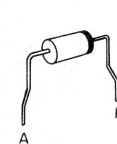
X201, 202, X231~240
X203, 204
X601~604
X605~610
X611~614
X615, 616, 801, 805
X617, 618, 802, 806
X701, 702
X703
X804



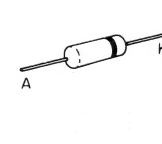
2SD313V(D,E) X803



3OD2FA-S
D801~804

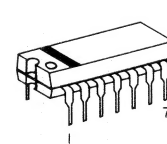


ERBI2-02RKLI
D703

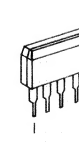


IS2076-3I
RD9, IE83
EQB01-15Z
RD13EB3
RD24EB3

D601, 602, 701
D603
D805, 806
D809
D807, 808



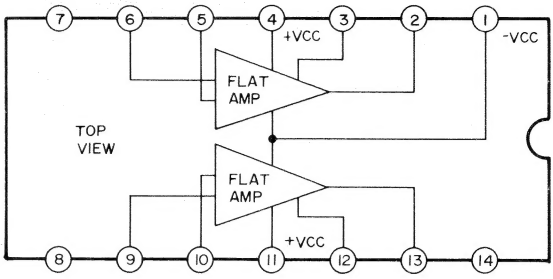
HA1452W
IC301



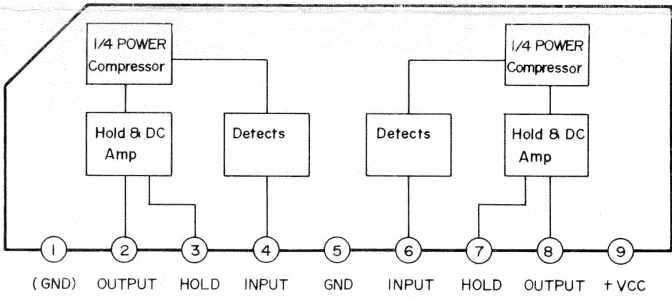
TA7318
IC7
TA7318
IC9

SEE BACK PAGE

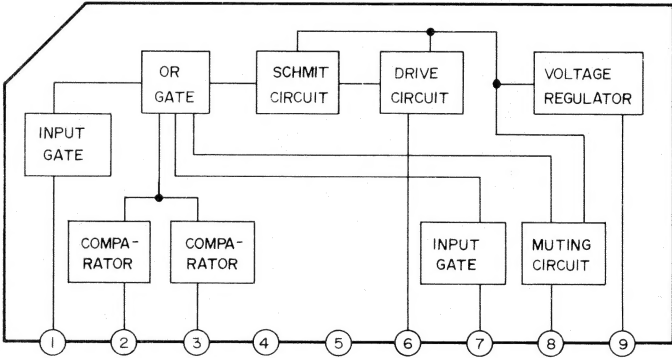
EQ. IC IC301 HA1452W



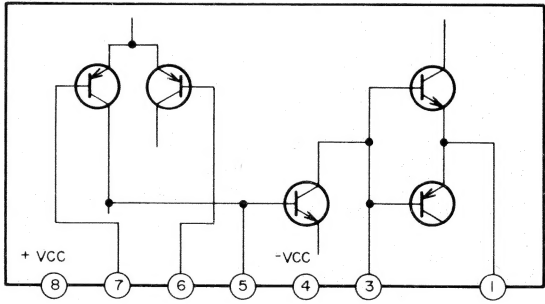
COMPRESSION IC IC901 TA7318P(2)



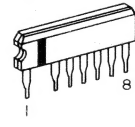
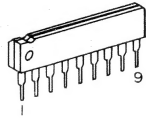
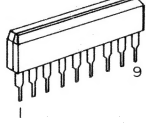
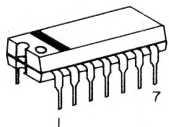
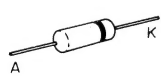
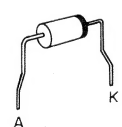
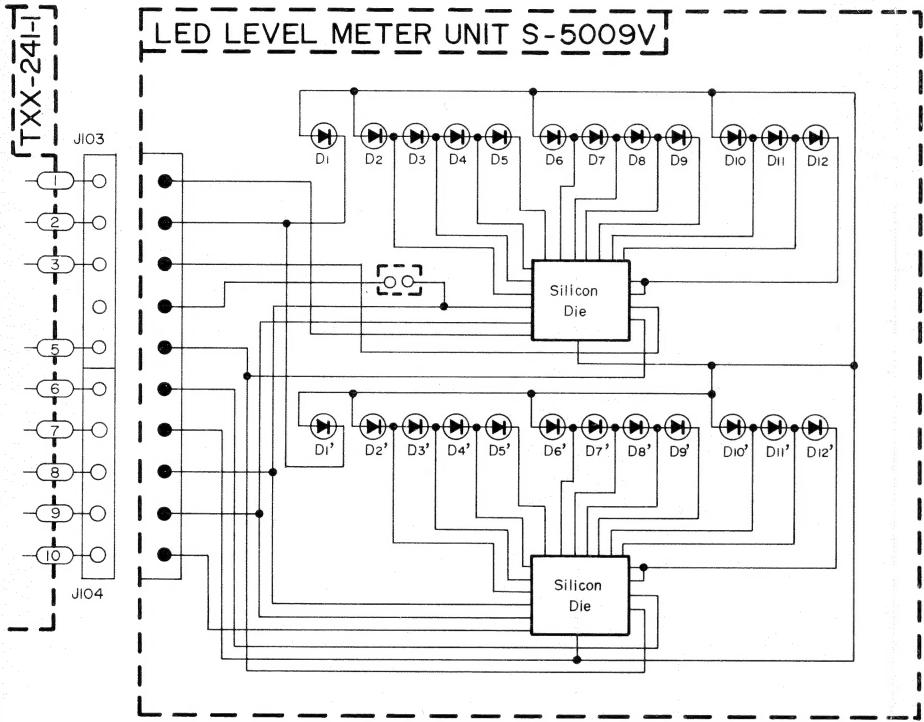
PROTECTOR IC IC701 TA7317P



SEA IC IC201, 202 HA1457



LED LEVEL METER UNIT S-5009V



S-804

ERB12-02RKL1
D703

IS2076-31
RD9,1EB3
EQB01-15Z
RD13EB3
RD24EB3

D601,602,701
D603
D805,806
D809
D807,808

HA1452W
IC301

TA7317P
IC701
TA7318P(2)
IC901

VC5022
IC601, 602

HA1457
IC201,202

10. Accessories List

Item No.	Part Number	Description	Q'ty
1	E30580-830A	Instruction Book (for U.K., E30580-830ABS)	1
2	See below	Warranty Card	1
3	E41202-2	Envelope for Instruction Book & Warranty Card	1
4	BT20042	"Does it Better" (for U.S.A. only)	1
5	QMF51A2-1R6L or 3R15S	Fuses (Other Countries)	1
6	E64208-001	Envelope for Fuses (for Other Countries)	1
7	E67142-T1R6 or T3R15	Fuse Label (for Other Countries)	1
8	E64216-002	Caution Tag for Power Cord (for Other Countries)	1

Warranty Card

U.S.A	Canada	U.K	Europe	Australia
BT20032B	BT20025C	BT20013C	—	BT20029B

11. Packing Materials and Part Numbers

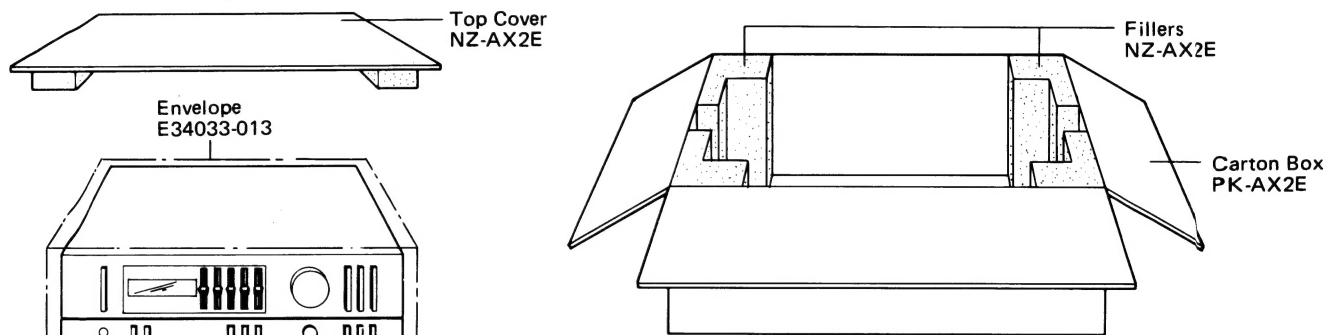


Fig. 18

12. Parts List with Specified Numbers for Designated Areas

Page	Item No.	Description	U.S.A.	Canada	U.K.	Europe	Australia	Other Countries
2, 3	S1	Power Transformer	E03077-55B	E03077-55D	E03077-55EBS	E03077-55E	E03077-55E	E03077-55C
2, 3		Power Switch	QSP110-301	QSP1110-301	See Back Page	See Back Page	See Back Page	QSP2110-004
8		Equalizer & Select Switch	TXX-240A	TXX-240A	TXX-240B	TXX-240B	TXX-240B	TXX-240B
3		P.C. Board Ass'y	E10498-001	E10498-001	E10498-002	E10498-002	E10498-002	E10498-001
2, 3		Chassis Base	E23474-001	E23474-001	E23474-002	E23474-002	E23474-002	E23474-003
9		Rear Panel	TPS-255B	TPS-255B	See Back Page	See Back Page	See Back Page	TPS234A
		AC Fuse & Voltage Selector P.C. Board Ass'y						
		Power Cord	QMP1200-200	QMP1200-200	QMP9017-008BS	QMP3900-200	QMP2560-244	QMP17600-250
		Strain Relief	QHS3876-162	QHS3876-162	QHS3876-162BS	QHS3876-162	QHS3876-162	QHS3876-162
	F001	Fuse (Primary)	QMF61U1-3R0 (3.0A)	QMF61U1-3R0 (3.0A)	QMF51A2-1R6LBS (T1.6A)	QMF51A2-1R6L (T1.6A)	QMF51A2-1R6L (T1.6A)	QMF51A2-1R6L (T1.6A) or QMF51A2-3R15 (T3.15A)
		Fastener	—	—	E34455-001	E34455-001	E34455-001	—
		Fuse Socket	—	—	—	—	—	QMC0301-003

Power Specifications

⚠ Safety Parts

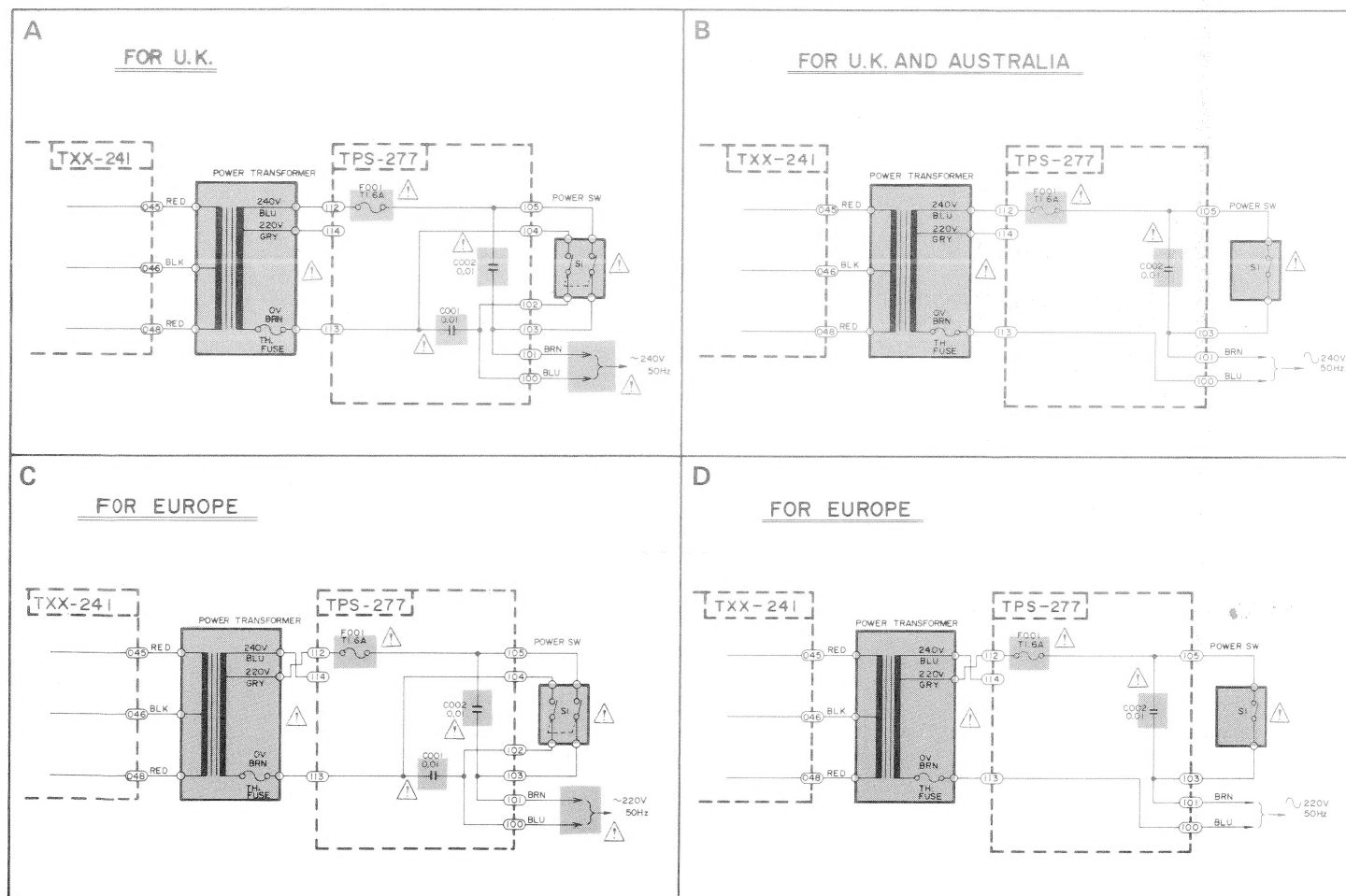
Area	Line Voltage & Frequency	Power Consumption
U.S.A. & Canada	AC 120 V, 60 Hz	220 W, 290 VA
Europe	AC 220 V~, 50 Hz	400 W
U.K. & Australia	AC 240 V~, 50 Hz	400 W
Other Countries	AC 110/120/220/240 V~ Selectable, 50/60 Hz	400 W

Warning! : Before servicing, check serial number at first.

The numbers shown in table are pointed out the last five digits of the serial number located on the rear panel.
For example, 08026 → □□□08026

Description	No.	U.K.		Europe		Australia
		00001-01010	over 01011	00001-04035	over 04036	over 00001
Power Switch		QSP2110-004BS	QSP1110-305BS	QSP2110-004	QSP1110-305	QSP1110-305
AC Fuse P.C. Board Ass'y		TPS-277FBS	TPS-277JBS	TPS-277E	TPS-277 I	TPS-277 I
Power Supply Schematic Diagram (Refer to the below)		A	B	C	D	B

Power Supply Schematic Diagram



JVC

VICTOR COMPANY OF JAPAN, LIMITED, TOKYO, JAPAN